

The L^AT_EX Companion

Second Edition

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The L^AT_EX Companion

Second Edition

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We dedicate this book to the memory of Michael Downes (1958–2003), a great friend and wonderful colleague on the \LaTeX Team. His thoughtful contributions to our work and our lives are diverse and profound. Moreover, he brightens the lives of countless grateful (\LaTeX) users through the wisdom built into his support for all aspects of mathematical typesetting—very many *masterpieces of the publishing art* will stand for ever as superb memorials to his quiet but deep insights.

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Preface

A full decade has passed since the publication of the first edition of *The L^AT_EX Companion*—a decade during which some people prophesied the demise of T_EX and L^AT_EX and predicted that other software would take over the world. There have been a great many changes indeed, but neither prediction has come to pass: T_EX has not vanished and the interest in L^AT_EX has not declined, although the approach to both has gradually changed over time.

When we wrote the *Companion* in 1993 [55], we intended to describe what is usefully available in the L^AT_EX world (though ultimately we ended up describing what was available at CERN in those days). As an unintentional side effect, the first edition *defined* for most readers what should be available in a then-modern L^AT_EX distribution. Fortunately, most of the choices we made at that time proved to be reasonable, and the majority (albeit not all) of the packages described in the first edition are still in common use today. Thus, even though “the book shows its age, it still remains a solid reference in most parts”, as one reviewer put it recently.

Nevertheless, much has changed and a lot of new and exciting functionality has been added to L^AT_EX during the last decade. As a result, while revising the book we ended up rewriting 90% of the original content and adding about 600 additional pages describing impressive new developments.

What you are holding now is essentially a new book—a book that we hope preserves the positive aspects of the first edition even as it greatly enhances them, while at the same time avoiding the mistakes we made back then, both in content and presentation (though doubtless we made some others). For this book we used the CTAN archives as a basis and also went through the `comp.text.tex` news group archives to identify the most pressing questions and queries.

In addition to highlighting a good selection of the contributed packages available on the CTAN archives, the book describes many aspects of the basic L^AT_EX system that are not fully covered in the *L^AT_EX Manual*, Leslie Lamport's *L^AT_EX: A Document Preparation System* [104]. Note, however, that our book is not a replacement for the *L^AT_EX Manual* but rather a companion to it: a reader of our book is assumed to have read at least the first part of that book (or a comparable introductory work, such as the *Guide to L^AT_EX* [101]) and to have some practical experience with producing L^AT_EX documents.

The second edition has seen a major change in the authorship; Frank took over as principal author (so he is to blame for all the faults in this book) and several members of the L^AT_EX3 project team joined in the book's preparation, enriching it with their knowledge and experience in individual subject areas.

*Thanks to a great
guy!*

The preparation of the book was overshadowed by the sudden death of our good friend, colleague, and prospective co-author Michael Downes, whose great contributions to L^AT_EX, and $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^AT_EX in particular, are well known to many people. We dedicate this book to him and his memory.

* * *

We first of all wish to thank Peter Gordon, our editor at Addison-Wesley, who not only made this book possible, but through his constant encouragement also kept us on the right track (just a few years late). When we finally went into production, Elizabeth Ryan was unfailingly patient with our idiosyncrasies and steered us safely to completion.

We are especially indebted to Barbara Beeton, David Rhead, Lars Hellström, and Walter Schmidt for their careful reading of individual parts of the manuscript. Their numerous comments, suggestions, corrections, and hints have substantially improved the quality of the text.

Our very special thanks go to our contributing authors Christine Detig and Joachim Schrod for their invaluable help with Chapter 11 on index preparation.

*Haunted package
authors*

Those who keep their ears to the ground for activities in the L^AT_EX world may have noticed an increased number of new releases of several well-established packages in 2002 and 2003. Some of these releases were triggered by our questions and comments to the package authors as we were preparing the manuscript for this second edition. Almost all package authors responded favorably to our requests for updates, changes, and clarifications, and all spent a considerable amount of time helping us with our task. We would particularly like to thank Jens Berger (jurabib), Axel Sommerfeldt (caption), Steven Cochran (subfig), Melchior Franz (soul, euro), and Carsten Heinz (listings) who had to deal with the bulk of the nearly 6000 e-mail messages that have been exchanged with various package authors.

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We gratefully recognize all of our many colleagues in the (L^A)T_EX world who developed the packages—not only those described here, but also the hundreds of others—that aim to help users meet the typesetting requirements for their documents. Without the continuous efforts of these enthusiasts, L^AT_EX would not be the magnificent and flexible tool it is today.

We would also like to thank Blenda Horn from Y&Y and Michael Vulis from MicroPress for supplying the fonts used to typeset the pages of this book.

The picture of Chris Rowley, taken after a good lunch at Kai Tek airport, Hong Kong, appears courtesy of Wai Wong. The picture of Michael Downes, taken at the T_EX 2000 conference, Oxford, appears courtesy of Alan Wetmore.

* * *

We would like to thank our families and friends for the support given during the preparation of this book—though this may sound like an alibi sentence to many, it never felt truer than with this book.

Chris would like to thank the Open University, United Kingdom, for supporting his work on L^AT_EX and the School of Computer Science and Engineering, University of New South Wales, for providing a most pleasant environment in which to complete his work on this book.

Frank Mittelbach
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David Carlisle
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